

QL235

.R5

B7

1909

Britton, N

L

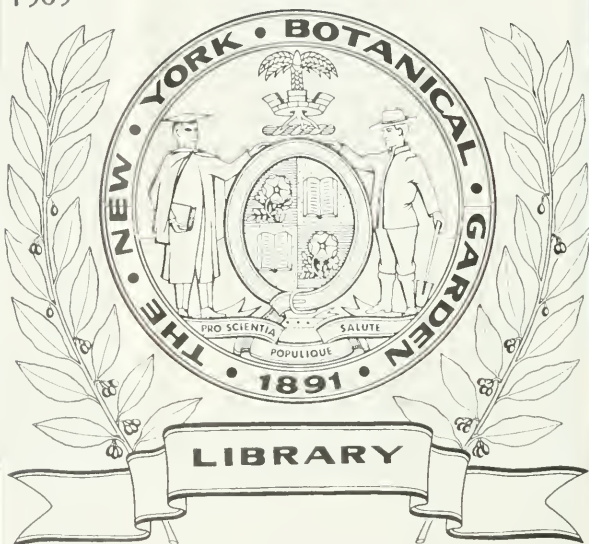
Rhipsalis in the West Indies

QL235

.R5

B7

1909



CONTRIBUTIONS FROM THE NEW YORK BOTANICAL
GARDEN—No. 124

RHIPSALIS IN THE WEST INDIES

BY N. L. BRITTON

NEW YORK
1909

Reprinted, without change of paging, from *TORREYA* 9: 153-160. 3 Au 1909.

QL235

.R5

B7

1909

RHIPSALIS IN THE WEST INDIES *

BY N. L. BRITTON

Rhipsalis is a genus of leafless jointed cacti, with round, angled, or flat branches and small flowers, consisting of numerous species, mostly natives of tropical America, but a few species occur in eastern tropical Africa and the widely distributed *R. Cassutha* grows also in Ceylon. In this Old World distribution the genus differs from all other cacti, the family being otherwise American in distribution, except for several *Opuntias*, which have become naturalized in southern Europe and northern Africa.

These African species are of great interest from the standpoint of geographic distribution because they are the only cacti native in any part of the Old World. From the large preponderance of species in America it seems certain that the ancestors of the African kinds must have been transported from the American tropics to those of Africa in past geologic time, and the method of transportation, unless there was land connection between the continents, can only be guessed at. There are many genera in other families of plants common to the American and African tropics, however, and this indicates the probability of former land connection, over which their ancestors might have spread by well-known natural means.

The genus was established by Gaertner (Fruct. & Sem. 1: 137. 1788), the type species being *R. Cassutha* Gaertn. Adanson (Fam. Pl. 2: 243. 1763) had previously proposed the generic name *Hariota*, for presumably the same species (Plumier, Plant. Amer. 190, pl. 197. f. 2), and this figure is cited by Linnaeus (Syst. ed. 10, 1054. 1759) under *Cactus parasiticus*, but Linnaeus at the same place, and before his citation of Plumier's figure,

* Illustrated with the aid of the Catherine McManes Fund.

cites Sloane, Jamaica, *pl.* 224. *f.* 3 and 4, which is a species of *Vanilla*, probably *V. Eggersiana* Rolfe. Inasmuch as Adanson did not typify *Hariota* binominally, and as the type of *Cactus parasiticus* L. is a *Vanilla*, it would appear that the name *Hariota* must be passed over, although it was taken up by Dr. Otto Kuntze (*Rev. Gen. Pl.* 261. 1891), and the species of *Rhipsalis*



FIG. 1. *Rhipsalis Cassutha* Gaertn. Near Utuado, Porto Rico. Photographed by Dr. Marshall A. Howe.

known to him transferred to it. Through Linnaeus's blunder of uniting two widely different plants, which he knew only from illustrations, we are apparently prevented from using the name *Hariota*, and the next oldest available generic name is *Rhipsalis*.

The species of *Rhipsalis* are mainly epiphytic, drooping from

trees, though sometimes found on cliffs, and they are mesophytes rather than xerophytes, inhabiting moist or wet regions. Some of them bear spines or bristles at the areoles of young shoots, which usually fall away early, leaving the mature plants quite unarmed, but a few South American species bear spines even when mature. Their flowers are whitish, yellowish, or pink, often almost rotate when widely expanded, the perianth-segments few, the perianth-tube short or none; the stamens are few or numerous and shorter than the perianth; the fruits are globular or oblong, white or yellowish berries with a watery pulp full of small seeds.

Three species are now known from the West Indies, which may be classified as follows :

Joints terete, slender (*Eurhipsis*).

1. *R. Cassutha*.

Joints flat (*Phyllorhipsis*).

Joints 4-6 cm. wide; flowers 15 mm. long; berry oblong. 2. *R. alata*.

Joints 1-2.5 cm. wide; flowers 6 mm. long; berry subglobose.

3. *R. jamaicensis*.

1. *Rhipsalis Cassutha* Gaertn. Fr. & Sem. 1 : 137. 1788

Cassytha filiformis Mill. Gard. Dict. Ed. 8. 1768. Not L.

Cactus parasiticus Lam. Encycl. 1 : 541. 1783. Not L.

Cactus pendulus Sw. Fl. Ind. Occ. 2 : 876. 1800.

Cactus caripensis H.B.K. Nov. Gen. 6 : 66. 1823.

Cereus caripensis DC. Prodr. 3 : 467. 1828.

Rhipsalis parasiticus DC. Prodr. 3 : 476. 1828.

Cactus fasciculatus Willd. Enum. Suppl. 33. 1813.

Rhipsalis parasitica Haw. Syn. Pl. Succ. 187. 1812.

Rhipsalis fasciculata Haw. Suppl. 83. 1819.

Rhipsalis cassythoides G. Don, Gen. Syst. 3 : 176. 1834.

Rhipsalis dichotoma G. Don, Gen. Syst. 3 : 176. 1834.

Rhipsalis undulata Pfeiff. Enum. 156. 1837.

Rhipsalis Hookeriana G. Don, Gen. Syst. 3 : 176. 1834.

Hariota parasitica Kuntze, Rev. Gen. Pl. 262. 1891.

Plant often 1 m. long or longer, much branched, light green, pendent from trees or on cliffs, the branches flexible; flowers 6-8 mm. long; petals about 4, ovate, obtuse; stamens about 9. [FIGURE 1.]

TYPE LOCALITY : Not cited.

ILLUSTRATIONS: Gaertn. *loc. cit.* pl. 28. f. 1; Hook. Exot. Fl. 1: pl. 2; Lodd. Bot. Cab. pl. 865; Bot. Mag. pl. 3079, 3080; DC. Pl. Grasses, pl. 59.

DISTRIBUTION: CUBA: Matanzas (*Rugel* 767; *Britton & Shafer* 450); Madruga (*Britton & Shofer* 788); Calicita near Cienfuegos (*Combs* 470); vicinity of San Luis, Oriente (*Pollard & Palmer* 356; *Maxon* 4012). HAITI: Port Margot to Corneil (*Nash* 228); La Brande to Mt. Balance (*Nash & Taylor* 1660). PORTO RICO: Yauco (*Garber* 63; *Sintenis* 3823); between Aibonito and Cayey (*Heller* 516); near Aibonito (*Underwood & Griggs* 488). JAMAICA: near Rio Grande Ford, Cuna Cuna Trail (*Fredholm* 3207); Belvidere (*Harris* 7646); vicinity of Castleton (*Maxon* 836); Moneague (*E. G. Britton* 2956). San Luis Potosi, Mexico, to Costa Rica, Colombia, Bolivia, Venezuela, and Brazil. Tropical Africa. Mauritius. Ceylon.

The young shoots are often quite bristly, but the mature plant becomes smooth; flowers are sometimes developed before the bristles fall away. In the West Indies the plant has not been observed by me at a greater altitude than about 500 meters.

2. *Rhipsalis alata* (Sw.) Schum. Fl. Bras. 4²: 288. 1890
Cactus alatus Sw. Prodr. 77. 1788.
Cereus alatus DC. Prodr. 3: 470. 1828.
Rhipsalis Swartziana Pfeiff. Enum. 131. 1837.
Hariota alata Kuntze, Rev. Gen. Pl. 262. 1891.
Rhipsalis Harrisii Gürke, Monats. Kakt. 18: 180. 1908.

Pendent from trees and on rocks, sometimes 5 meters long, with several long branches; joints broadly linear, lanceolate or linear-oblong, often constricted at the middle or above it, bluntish at the apex, decurrent below into a stipe-like base, rather fleshy, bright green, about 1 mm. thick, 2-4 dm. long, 4-6 cm. wide, the midvein prominent and stout, the margins crenate-undulate, the lower crenations 1-2 cm. long, the upper ones 4-8 mm. long, the main lateral veins ending in the sinuses; flowers yellowish-white, about 15 mm. long; petals 10, lanceolate, acutish, the outer slightly longer than the inner, erect and nearly parallel; stamens numerous, about one half as long as the petals; style slender, about three times as long as the five linear stigmas; berry ovoid, rounded at both ends, yellow-green, 1 cm. long. [FIGURE 2.]

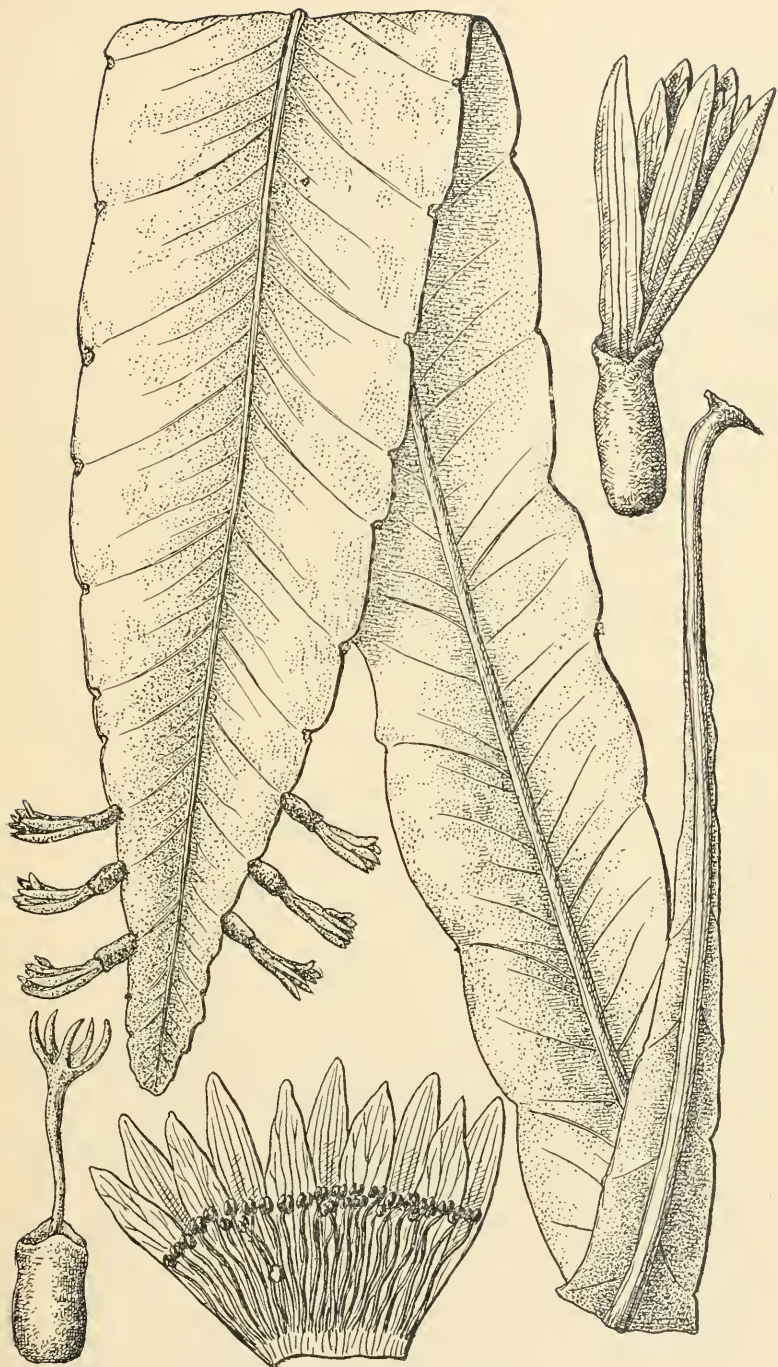


FIG. 2. *Rhipsalis alata* (Sw.) Schum.

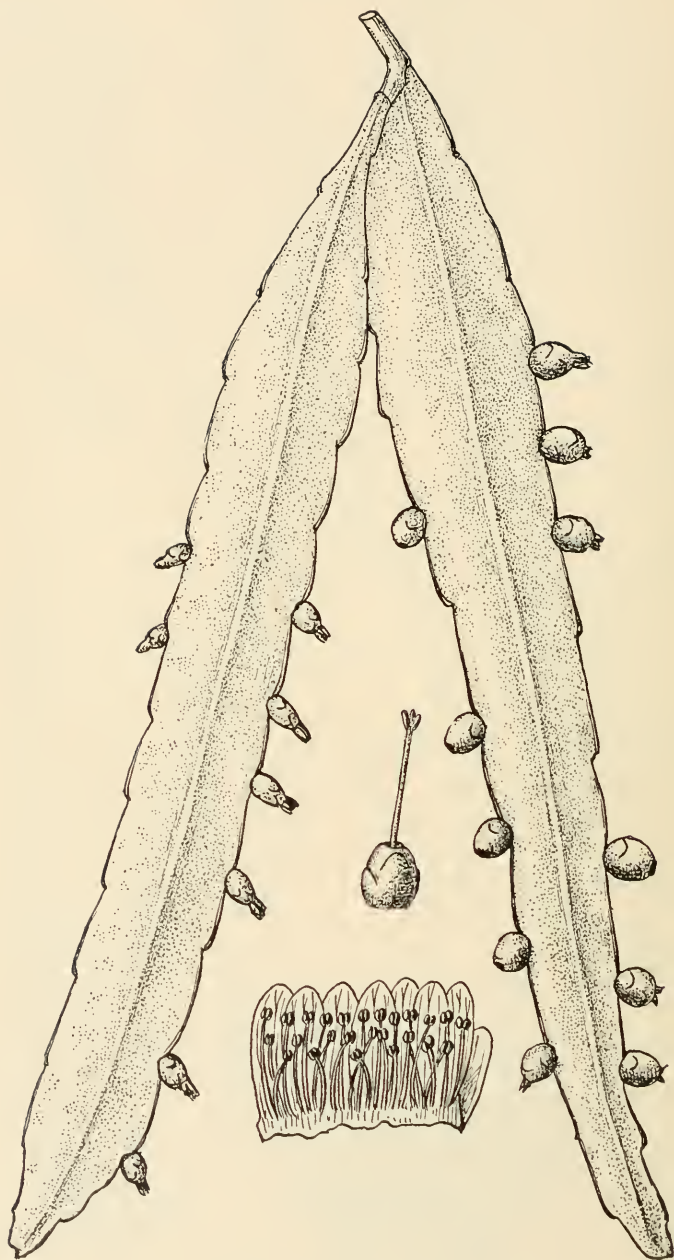


FIG. 3. *Rhipsalis jamaicensis* Britton & Harris.

JAMAICA: Woodstock, near Newmarket, Westmoreland (*Britton 1583*; *Harris 9995*); Belvidere, Hanover (*Harris 7619*); Kempshot, Hanover (*Britton & Hollick 2408*); Mandeville, Manchester (*Britton 3751*). The plant flowers in autumn.

This species has been misinterpreted by authors, commencing with Grisebach (Fl. Br. W. I. 302. 1860) and the name *alatus* applied to the other somewhat similar plant of Jamaica to be described below. I have satisfactorily identified it from Swartz's description, and by the aid of a tracing of a type specimen preserved in the herbarium of the British Museum of Natural History, kindly sent at my request by Mr. A. B. Rendle, and Professor Urban informs me that the Swartz specimen preserved in the Stockholm Herbarium is also certainly this species.

The name *Rhipsalis alata* is to be found incidentally mentioned under *Cereus alatus* in Steudel, Nomencl. ed. 2, 1: 333, published in 1841, without any description of the plant referred to, and is therefore a hyponym to be disregarded.

3. *Rhipsalis jamaicensis* Britton & Harris, sp. nov.

Pendent from trees, the young shoots quite bristly, the older joints smooth; plant 3-10 dm. long, the main axis angular; joints 1-4 dm. long, 1-2.5 cm. wide, dull green, about 2 mm. thick, the apex bluntish, the base narrowed into a stipe 1-6 cm. long, the margins low-crenate; flowers yellowish green, about 6 mm. long, the petals about 7, oblong to oblanceolate, not very widely expanding, obtusish; ovary oblong, with a few scales; stamens 20-24; style much longer than the three oblong stigmas; berry globose, white, 6-8 mm. in diameter. [Figure 3.]

JAMAICA: Troy, Cockpit Country (*Britton 511*, type); vicinity of Troy (*Maxon 2813*); near Montpellier (*E. G. Britton 2863*); Bath to Cuna Cuna Gap (*Britton 3502*).

In "Gesamtbeschreibung der Kakteen.," p. 636, the late Professor Schumann, erroneously describing this plant as *Rhipsalis alata*, refers the Costa Rican *Rhipsalis coriacea* Polak. Linnaea 41: 562, 1877, to it as a synonym. This species is, perhaps, its closest relative, but after growing the two side by side at the New York Botanical Garden, I am convinced that they are distinct.

Visitors to the New York Botanical Garden will find the collection of *Rhipsalis* in Range 1, House No. 7, of the public conservatories.

PUBLICATIONS

OF

The New York Botanical Garden

Journal of the New York Botanical Garden, monthly, illustrated, containing notes, and non-technical articles of general interest. Free to members of the Garden. To others, 10 cents a copy; \$1.00 a year. [Not offered in exchange.] Now in its tenth volume.

Mycologia, bimonthly, illustrated in color and otherwise; devoted to fungi, including lichens; containing technical articles and news and notes of general interest. \$3.00 a year; single copies not for sale. [Not offered in exchange.] Now in its first volume.

Bulletin of the New York Botanical Garden, containing the annual reports of the Director-in-Chief and other official documents, and technical articles embodying results of investigations carried out in the Garden. Free to all members of the Garden; to others, \$3.00 per volume. Vol. I, Nos. 1-5, 449 pp., 3 maps, and 12 plates, 1896-1900. Vol. II, Nos. 6-8, 518 pp., 30 plates, 1901-1903. Vol. III, Nos. 9-11, 463 pp., 37 plates, 1903-1905. Vol. IV, Nos. 12-14, 479 pp., 14 plates, 1905-1907. Vol. V, Nos. 15-18, 463 pp., 17 plates, 1906-1908; Vol. VI, No. 19, 114 pp., 1908. Vol. VI, No. 20, 112 pp., 1909.

North American Flora. Descriptions of the wild plants of North America, including Greenland, the West Indies and Central America. Planned to be completed in thirty volumes. Roy. 8vo. Each volume to consist of four or more parts. Subscription price \$1.50 per part; a limited number of separate parts will be sold for \$2.00 each. [Not offered in exchange.]

Vol. 22, part 1, issued May 22, 1905. Rosales: Podostemonaceae, Crassulaceae, Penthoraceae, Parnassiaceae.

Vol. 22, part 2, issued December 18, 1905. Saxifragaceae, Hydrangeaceae, Cunoniaceae, Iteaceae, Hamamelidaceae, Pterostemonaceae, Altingiaceae, Phyllonomaceae.

Vol. 7, part 1, issued Oct. 4, 1906. Ustilaginaceae, Tilletiaceae.

Vol. 7, part 2, issued March 6, 1907. Coleosporiaceae, Uredinaceae, Aecidiaceae (pars).

Vol. 25, part 1, issued August 24, 1907. Geraniaceae, Oxalidaceae, Linaceae, Erythroxylaceae.

Vol. 9, parts 1 and 2, issued December 19, 1907, and March 12, 1908. Polyboraceae.

Vol. 22, part 3, issued June 12, 1908, contains descriptions of the family Grossulariaceae by F. V. Coville and N. L. Britton, the Platanaceae by H. A. Gleason, the Crossosomataceae by J. K. Small, the Connaraceae by N. L. Britton, the Calycanthaceae by C. L. Pollard, and the Rosaceae (pars) by P. A. Rydberg.

Vol. 22, part 4, issued Nov. 20, 1908. Rosaceae (pars) by P. A. Rydberg.

Memoirs of the New York Botanical Garden. Price to members of the Garden, \$1.00 per volume. To others, \$2.00. [Not offered in exchange.]

Vol. I. An Annotated Catalogue of the Flora of Montana and the Yellowstone Park, by Per Axel Rydberg. ix + 492 pp., with detailed map. 1900.

Vol. II. The Influence of Light and Darkness upon Growth and Development, by D. T. MacDougal. xvi + 320 pp., with 176 figures. 1903.

Vol. III. Studies of Cretaceous Coniferous Remains from Kreischerville, New York, by Dr. Arthur Hollick and Dr. Edward Charles Jeffrey. viii + 138 pp., with 29 plates. 1909.

Vol. IV. Effects of the Rays of Radium on Plants, by Charles Stuart Gager. viii + 278 pp., with 73 figures and 14 plates. 1908.

Contributions from the New York Botanical Garden. A series of technical papers written by students or members of the staff, and reprinted from journals other than the above. Price, 25 cents each. \$5.00 per volume. Four volumes.

RECENT NUMBERS 25 CENTS EACH.

120. Phycological Studies—IV. The Genus *Neomeris* and Notes on other Siphonales, by Marshall A. Howe.

121. Reproduction by Budding in *Drosera*, by Winifred J. Robinson.

122. Notes on North American Hypocreales—II. *Nectria* Peziza, by Fred J. Seaver.

NEW YORK BOTANICAL GARDEN

BRONX PARK, NEW YORK CITY

New York Botanical Garden Library
QL 235 .R5 B7 1909 gen
Britton, Nathaniel/Rhipsalis in the West



3 5185 00088 3692

